

FIG. 1

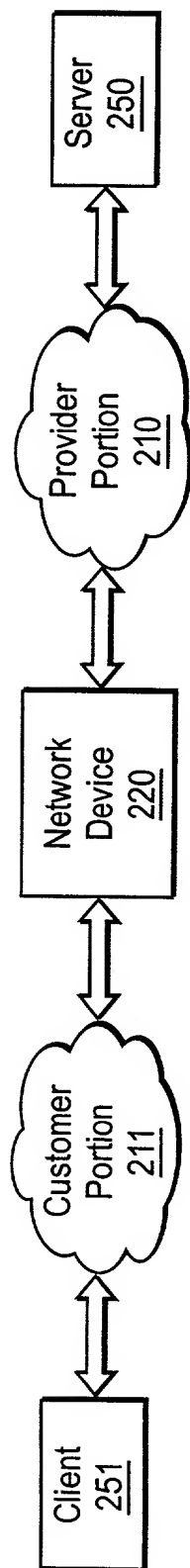


FIG. 2

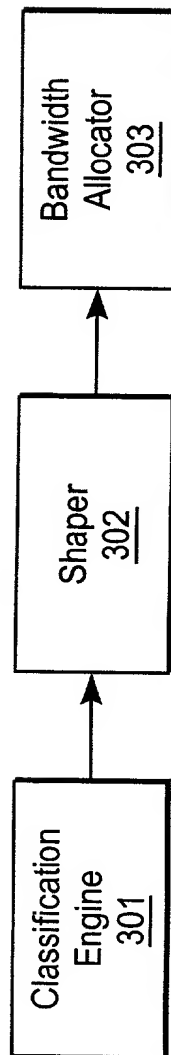


FIG. 3

Top

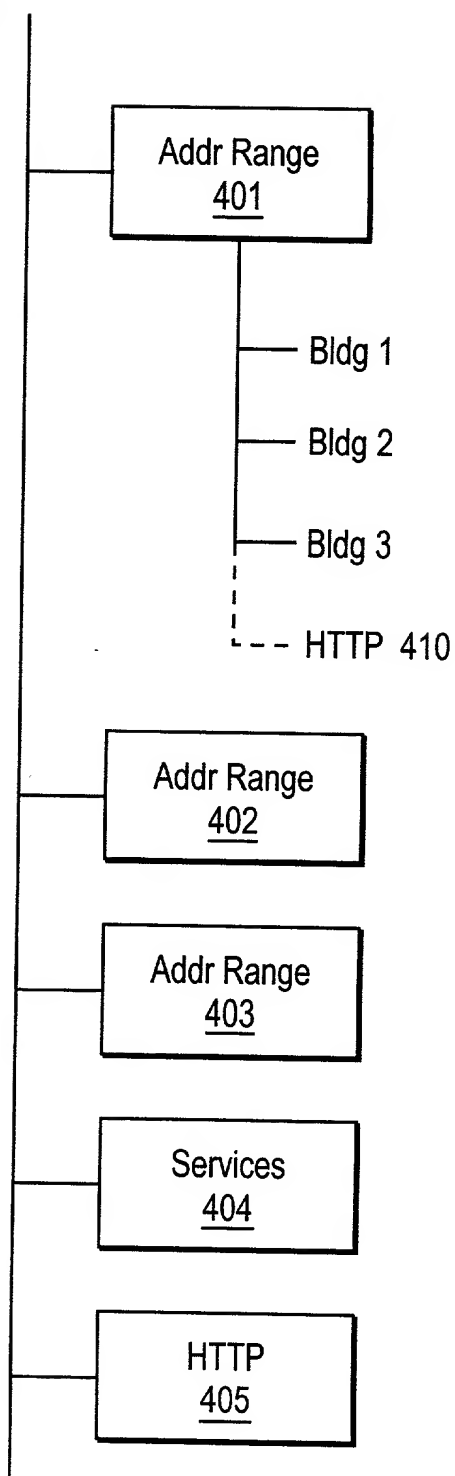


FIG. 4

Classification Tree Example

| | |
|---------|--|
| TC-0 | |
| TC-1 C1 | ← start of C1 cacheables (address group) |
| TC-2 C1 | |
| TC-3 | ← end of C1 cacheables |
| TC-4 C2 | ← start of C2 cacheables (protocol type group) |
| TC-5 C2 | |
| TC-6 C3 | ← start of C3 cacheables, end of C2 cacheables, F1 hits TC-6 |
| TC-7 | ← end of C3 cacheables (port matching group) |
| DEFAULT | |

FIG. 5

Case 1: First packet of Flow1 (F1) is classified as TC6.

| data | Pass Number through the While Loop | | | | | | |
|-----------|---------------------------------------|---------|----------|---------|---------|---------|---------|
| | 1st | 2nd | 3rd | 4th | 5th | 6th | 7th |
| tclass | TC-0,1 | TC-1,11 | TC-2,11 | TC-3,11 | TC-4,11 | TC-5,11 | TC-6,11 |
| inCache | FALSE,2 | TRUE,9 | FALSE,12 | | TRUE,9 | | TRUE,9 |
| cacheProc | | C1,6 | | | C2,6 | | C3,6 |
| cacheEnd | | TC-3,6 | | | TC-6,6 | | TC-7,6 |
| C1 add | | | F1,12 | NF* | | | |
| C2 add | | | | | | F1,12 | NF* |
| C3 add | | | | | | | F1,10F* |

*NF and F represent NOT FOUND and FOUND.

FIG. 6

Case 2: Second packet of Flow1 (F1) is classified as TC6.

| data | Pass Number through the While Loop | | | |
|-----------|------------------------------------|------------|------------|---------|
| | 1st | 2nd | 3rd | 4th |
| tclass | TC-0,1 | TC-1,11 | TC-3,8 | TC-4,11 |
| inCache | FALSE,2 | | TC-6,8 | TC-6,7 |
| cacheProc | | C1,6 | C2,6 | C3,6 |
| cacheEnd | | TC-3,6 | TC-6,6 | TC-7,6 |
| C1 lookup | | NOTFOUND,6 | | |
| C2 lookup | | | NOTFOUND,6 | |
| C3 lookup | | | | FOUND,6 |

FIG. 7

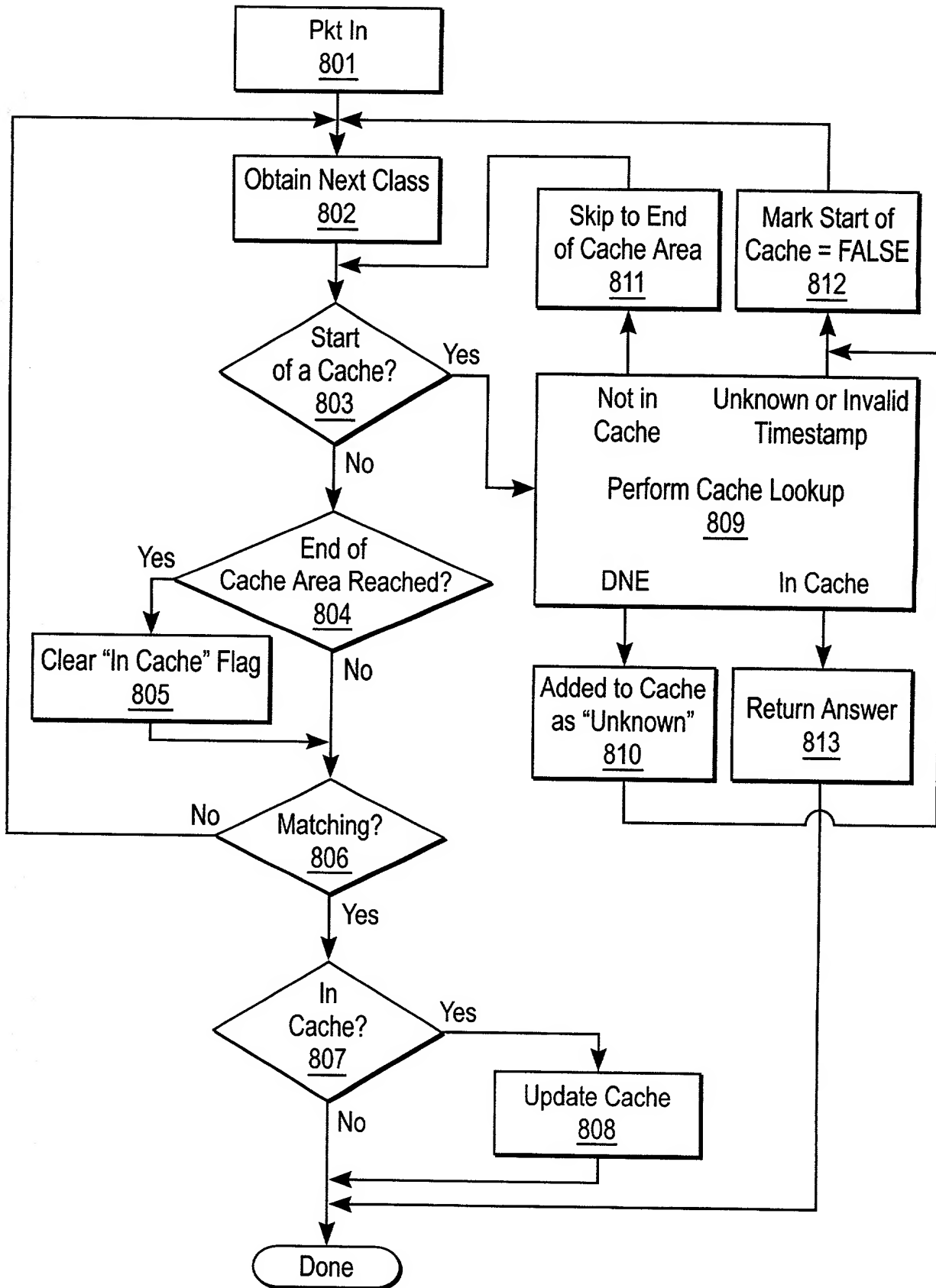


FIG. 8